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वायुचालित उपकरणों और मशीनों हेतु  
अधिमानित दाब के लिए संस्तुतियां  
( पहला पुनरीक्षण )

**Recommendations for Preferred  
Pressures for Pneumatic Tools and  
Machines**

( First Revision )

ICS 23.140.10

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## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Pneumatic and Hydraulic Tools Sectional Committee had been approved by the Production and General Engineering Division Council.

The range of design pressure given in this standard is very limited and concentrated on those which are used in the industry

This standard was first published in 1988. This revision of the standard has been brought out to align it with the latest drafting guideline of IS 12 : 2005 'Guide for drafting and presentation of Indian Standards (*fourth revision*)'.

The composition of the Committee responsible for the formulation of this standard is given in [Annex A](#).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this standard.

*Indian Standard*

# RECOMMENDATIONS FOR PREFERRED PRESSURES FOR PNEUMATIC TOOLS AND MACHINES

*( First Revision )***1 SCOPE**

The standard lays down a series of preferred pressures to be used as reference pressures when presenting performance data for pneumatic tools and pneumatic machines. Components for compressed air systems shall also be designed to meet the standardized pressures.

tool or machine is normally intended to be used. This is the pressure at which the performance tests for the machine shall be run.

**3 DESIGN PRESSURES FOR PNEUMATIC TOOLS AND PNEUMATIC MACHINES**

The preferred design pressures and their fields of application are as given below in [Table 1](#).

**2 DEFINITION**

**2.1 Design Pressure (for Pneumatic Tools or Pneumatic Machines)** — The pressure at which the

**Table 1 Preferred Design Effective (Gauge) Pressures for Pneumatic Tools and Pneumatic Machines**

*(Clause 3)*

SI No.	Preferred Design Pressure Bars	Examples of Typical Applications
(1)	(2)	(3)
i)	4	a) Rock drills and other equipment in coal-mines. b) Spray-painting guns for car-service stations and small factories.
ii)	6.3	a) Rock-drills for general use. b) Equipment for road-construction and building industries. engineering tools for machine-shops, metal-producing industries, shipyards, etc. Air motors for various uses. c) Spray-painting guns for-mass production.
iii)	10	a) Sandblasting equipment for mass production. b) Rock-drills for 'down the hole' method.
iv)	16	Heavy rock-drills for 'down the hole' method.
v)	25	For future use.

NOTE — If a manufacturer has to choose a design pressure outside, the standard range for a new tool or a new application, the range of rated pressure for compressors may be used for guidance.

ANNEX A

(Foreword)

COMMITTEE COMPOSITION

Pneumatic and Hydraulic Tools Sectional Committee, PGD 08

<i>Organization</i>	<i>Representative(s)</i>
Bharat Heavy Electrical Limited, New Delhi	SHRI M. RAVI ( <b>Chairperson</b> )
Bharat Electronics Limited, Bengaluru	SHRI SUDARSHAN K.
Border Roads Organization, New Delhi	SHRI PANKAJ BHATNAGAR
Directorate General Quality Assurance, New Delhi	DR GURMUKH DAS SHRI G. ARAVINDAN ( <i>Alternate</i> )
Indian Institute of Technology Madras, Chennai	DR SOMASHEKHAR
Indian Institute of Technology Roorkee, Roorkee	SHRI APURBBA KUMAR DR AKSHAY DVIVEDI ( <i>Alternate</i> )
International Electrotechnical Commission Dusterloh Private Limited, Pune	SHRI VIJAY JOGLEKAR SHRI RAJESH K. DASTANE ( <i>Alternate</i> )
Mahindra and Mahindra Limited, Mumbai	SHRI GAURAV BHASKAR
Oil and Natural Gas Corporation Limited, New Delhi	SHRI YUVRAJ SHRI PARAG KUMAR ( <i>Alternate I</i> ) SHRI S. M. AGGARWAL ( <i>Alternate II</i> )
Powermaster Engineers Private Limited, Navi Mumbai	PROF S. B. KATKAR PROF SHASHI SINGH ( <i>Alternate</i> )
rites Limited, Gurugram	SHRI P. K. LAL SHRI BRIJVEER SINGH ( <i>Alternate</i> )
Sandvik Asia Private Limited, Hyderabad	SHRI SUKHVEER SINGH KALSI
Steel Authority of India Limited, Bhilai Steel Plant, Bhilai	SHRI ELIYAS AHMED
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SHRI AJAY KUMAR

SCIENTIST 'B'/ASSISTANT DIRECTOR  
(PRODUCTION AND GENERAL ENGINEERING), BIS



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This Indian Standard has been developed from Doc No.: PGD 08 (20444).

### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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